

**Table 5-2 – Minimum Energy Factor Small Water Heaters**

Source: Energy Commission Appliance Efficiency Regulations, Table F-4 – Standards for Small Federally-Regulated Water Heaters

Type	Size	Energy Factor (EF)
Gas Storage	≤ 75,000 Btu/hr	0.67-(0.0019*V)
Gas Instantaneous	≤200,000 Btu/hr	0.62-(0.0019*V)
Oil Storage	≤105,000 Btu/hr	0.59-(0.0019*V)
Oil Instantaneous	≤210,000 Btu/hr	0.59-(0.0019*V)
Electric Storage (exc. Table top)	≤ 12KW	0.97-(0.00132*V)
Electric Table Top	≤ 12KW	0.93-(0.00132*V)
Electric Instantaneous (exc. table top)	≤ 12KW	0.93-(0.00132*V)
Heat pump Water Heater	≤ 24 Amps	0.97-(.00132*V)

Note: V refers to tank volume (gal). Effective Date January 20, 2004

The energy efficiency of equipment that is larger than the sizes indicated in Table 5-2, are regulated by the California Appliance Efficiency Regulations. Energy factor is not used for larger equipment, but rather minimums are specified for thermal efficiency and standby loss as shown in Table F-3 (see Appendix B).

The minimum efficiency of new water heaters is not something that needs to be checked at the building counter when the prescriptive method is used, since this is an appliance standard and applies at the point of sale. Water heater efficiency may be a factor in compliance, however, when the performance method is used.

### ***Energy Factor***

Used to measure the efficiency of water heaters, the Energy Factor (EF) is “the ratio of energy output to energy consumption of a water heater, expressed in equivalent units, under designated operating conditions over a 24-hour use cycle, as determined using the applicable test method in the Appliance Efficiency Regulations.” [§101]

